

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

Claim Status

After entry of the foregoing amendments, claims 18-36 are pending in this application, of which claims 18, 26, and 30 are independent in form. Claims 1-17 are canceled herein without prejudice or disclaimer. New claims 18-36 are added herein. Support for newly added claims 18-36 is found throughout the specification and drawings, as originally filed. No new matter is added by these amendments.

Information Disclosure Statement

Applicants submit herewith an Information Disclosure Statement and corresponding Form PTO-1449. The Examiner is respectfully requested to fully consider the disclosed references and return an initialed copy of the Form PTO-1449 to the Applicants.

Double Patenting

Claim 3 is objected to under 37 C.F.R. § 1.75 as allegedly being a duplicate of claim 2. Claim 3 is canceled herein, thereby rendering moot the objection to claim 3.

Claim Rejections – 35 U.S.C. § 102

Claims 1-17 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kandaka et al., U.S. Patent Publication No. 20030081722 (“Kandaka”). Applicants respectfully disagree with the characterization of the claims and prior art in the stated rejection and respectfully traverse this rejection. However, claims 1-17 are canceled herein, thereby rendering moot the rejection of claims 1-17 under 35 U.S.C. § 102(e).

Newly Added Claims

The claimed subject matter is patentably distinct from the prior art of record, including, U.S. Patent Application No. 2003/81722, U.S. Patent Application No. 2002/171922, and Japanese Patent Application Publication No. 2002-13148, which is cited in the Japanese Office Action that is disclosed in the Information Disclosure Statement filed herewith.

Newly added claim 18 is characterized by “a second step for measuring a wave front aberration of the optical system using a non-exposure light having a wavelength different from that of the EUV light, a third step for removing a part of the multilayer film based on a measurement result in said first step, a fourth step for measuring a wave front aberration of the optical system that includes the multilayer mirror from which the part of the multilayer film is removed, using the non-exposure light, and a fifth step for adjusting a position of the multilayer mirror based on a measurement result in said fourth step, wherein said fourth step measures the wave front aberration of the optical system except an area in which the multilayer film is removed among the multilayer mirror.” This method is not disclosed or suggested in the prior art.

Japanese Patent Application Publication No. 2002-131489 discloses an exposure apparatus that measures wave front aberrations using EUV light. However, Japanese Patent Application Publication No. 2002-131489 recognizes an inherent problem:

Moreover, if the front face of multilayers tends to be removed partially once and it is going to measure a field configuration again, since the reflected wave side configuration over the light and the reflected wave side configuration over the soft X ray of operating wavelength are not the same any longer, it cannot measure in the interferometer using the conventional light.

Japanese Patent Application Publication No. 2002-131489 at paragraph 0011. Further, Japanese Patent Application Publication No. 2002-131489 only discloses a means to measure a wave front aberration of a multilayer film surface using only EUV light of the wavelength in which the

multilayer film is used as a means for solving this problem, and does not disclose or suggest a means to measure the wave front aberrations using a wavelength different from the wavelength in which the multilayer film is used.

Moreover, U.S. Patent Application No. 2003/81722 only discloses a position adjustment of a mirror using visible light (He-Ne laser). However, U.S. Patent Application No. 2003/81722 does not disclose or suggest a means to measure a wave front aberration of the optical system except an area in which the multilayer film is removed among the multilayer mirror.

Applicant respectfully submits that the present invention as claimed is neither taught nor suggested by, and therefore is neither anticipated nor rendered obvious in view of, the prior art of record, alone or in combination. Accordingly, Applicants respectfully assert that newly added claims 18-36 define patentable subject matter.

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

AUTHORIZATION

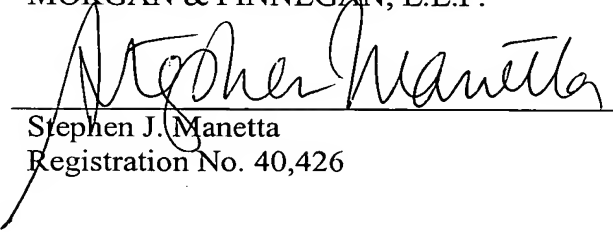
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 1232-5095.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 1232-5095.

Respectfully submitted,
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By: _____


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